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UCD-B A01 (600204464-9 US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: M. Aronhime, et al.

Art Unit: 1774

Serial No.: 09/011,634

Examiner: Grendzynski

Filed: April 3, 1998

For: INTERMEDIATE TRANSFER BLANKET AND METHODS OF
PRODUCING THE SAME**THIRD DECLARATION OF MARC ARONHIME UNDER 37 CFR 1.132**Commissioner of Patents and Trademarks
Washington, D.C. 20231

I, Marc Aronhime, hereby declare as follows:

1. I am very familiar with polymer materials. I hold an M.A. and a Ph.D. in Chemical Engineering from Princeton University. I have been working in polymer chemistry since 1985 and in research and development connected with liquid toner imaging since 1994. I am employed by Indigo Ltd., an Israel research and development company specializing in liquid toner imaging systems, as Manager of Polymers and Elastomers Imaging Products R&D.

2. I am the same Marc Aronhime who, with regard to the above application, filed a first declaration (the "First Declaration") on November 7, 2001, and a second declaration (the "Second Declaration") filed on January 3, 2003. I confirm the contents of both the First Declaration and the Second Declaration and incorporate each herein in their

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entirety, including attachments, enclosures, and accompanying samples.

3. As the first named inventor of the above application I am familiar with said application and the invention disclosed therein. I am also familiar with the prosecution before the United States Patent and Trademark Office of said application, including an Office Action dated March 12, 2003.

4. In paragraphs 4 and 5 of the Second Declaration I discussed image transfer blankets having release layers prepared according to the procedures set forth at page 22, line 21, to page 24, line 22, of the specification of the above application. To the extent that there is any misunderstanding or misappreciation of the release layer preparation procedures, it should be clearly understood that the procedures set forth therein were used to prepare release layers according to the invention, and each release layer prepared was non-tacky, as demonstrated there for liquid toner imaging in particular. This does not preclude the release layers according to the invention being non-tacky in other applications. Also, the release layers prepared were non-tacky even when the compositions contained small amounts of a material such as a silicone oil that in the prior art had been characterized as a tackifier.

5. With my Second Declaration I provided samples of intermediate transfer blankets, each having a release layer prepared according to the invention herein. To the extent that there is any question about the manner in which the intermediate transfer blankets and/or release layers were prepared, please note the following:

(a) In two separate procedures, 100 grams of each of RTV 11 and RTV 41 (each a diorganosiloxane from General Electric) were dissolved in 16.7 grams of Isopar L

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(available from Exxon) and 50 gm hexane. Each solution was centrifuged at 8000 rpm for about 70 minutes, and then the liquid was decanted. The percents solids were determined, and the precipitated solids were discarded.

(b) An amount of the RTV11 solution which provides 60 gm RTV11 solids is mixed with an amount of RTV41 solution which provides 40 gm RTV41 solids. To this mixture is added 1 gm carbon black. The resulting mixture is dispersed with a high shear mixer for 8 minutes. To this solution 10% ethyl siloxane, 10% oleic acid, and 1.6% DBTDL were added, based upon the total weight of the RTV 11 and RTV 41 solids, and were mixed in a high shear mixer.

(c) A catalyst solution is prepared by dispersing 4 gm of fumed silica (R972, Degussa) in 96gm xylene using a sonicator for 2 minutes. To prepare 100 gm of catalyst solution, 25 gm of the silica solution are mixed with 50 gm of (3-glycidoxypropyl) trimethoxysilane (ABCR), 7 gm of stannous octoate (Sigma) and 18 gm of xylene.

(d) The catalyst solution was coated onto a conforming layer by use of a wire rod, which was then overcoated by the release solution. The coated substrate was then cured in an oven for two hours at 140°C.

6. Transfer blanket materials were also prepared where in step (b), the mixtures contained 2, 5, or 10% by weight of a mixture of di-methylsilicone oils having a viscosity of 1000 and 10,000 cps. Samples of the resulting products were also provided with the Second Declaration.

7. I again emphasize that all products prepared according to the invention are, and have been, non-tacky. In a specific application, under normal conditions of operation of the blankets, i.e., at room temperature and at the temperatures normally encountered in

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liquid toner imaging and when used to transfer liquid toner images from a photoreceptor to a final substrate, the surface of the blanket is not tacky for any of the blankets produced. The release layer's being non-tacky is a significant characteristic of the invention that makes the invention suitable for the intended purpose and distinguishes the invention from the prior art.

8. I have reviewed the statements of the Examiner made in the Office Action dated March 12, 2003. I believe the information above addresses the Examiner's comments regarding any perceived deficiencies of the Second Declaration. I particularly believe that the results reported in the specification, the First and Second Declarations, and herein are consistent with and supportive of the release layer of the invention being non-tacky.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and such willful false statements may jeopardize the validity of any patent issuing thereon.

Date: 7/17/03

Marc Aronhime

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